WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 12/07/2012
API #: 47-033-05555

Farm name: Hudkins, R.D. Operator Well No.: Hudkins 2HM

LOCATION: Elevation: 1174' GL Quadrangle: Mount Clare 7.5'

District: Grant County: Harrison

Latitude: 2,840 Feet South of 39 Deg. 12 Min. 30 Sec.

Longitude 5,127 Feet West of 80 Deg. 20 Min. 00 Sec.

Company: Petroleum Development Corporation

Address: 120 Genesis Boulevard	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Bridgeport, WV 26330	20"	27'	27'	Grout to Surface
Agent: Bob Williamson	13 3/8"	462'	462'	466
Inspector: Tristan Jenkins	9 5/8"	2686'	2686'	1135
Date Permit Issued: 06/15/2011	5 1/2"	11,856'	11,856'	3154
Date Well Work Commenced: 06/29/2011				
Date Well Work Completed: 10/09/2012				
Verbal Plugging: N/A				
Date Permission granted on: ---------				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 7224'				
Total Measured Depth (ft): 11,893'				
Fresh Water Depth (ft.): 17', 142'				
Salt Water Depth (ft.): 1410'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None Reported				
Void(s) encountered (N/Y) Depth(s) None				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Shale Pay zone depth (ft) 7221'

Gas: Initial open flow N/A MCF/d Oil: Initial open flow --- Bbl/d

Final open flow 3554 MCF/d Final open flow --- Bbl/d

Time of open flow between initial and final tests 720 Hours

Static rock Pressure 1200 psig (surface pressure) after 72 Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

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I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

12/07/2012
Date

33.05555

Were core samples taken? Yes_____ No XX

Were cuttings caught during drilling? Yes XX No_____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Sonic Scanner/CBL/GR/CCL from 11,800'-5450', OH Mud Log from 5950'- 11,893', Baker Directional GR from 2705' - 11,893'

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Perforated interval 7,805ft-11,785ft (480 shots) Fraced 12 stages using 285 bbls 15% HCl and 105,400 bbls of Slickwater carrying 992,500 lbs of 100-mesh sand, 3,764,400 lbs of 40/70 sand, and 20,200 lbs of 30/50 sand.

Plug Back Details Including Plug Type and Depth(s): N/A

Formations Encountered: Surface:	Top Depth	/ Bottom Depth	
Little Lime	1476	1503	(All depths TVD except MD-TD)
Big Lime	1520	1698	Show Oil, Gas & Water @ 1573'.
Gantz	1982	2013	
Fifty Foot	2050	2101	
Gordon Stray	2149	2171	
4th SS	2280	2342	
5th Sand	2356	2383	
Bayard	2468	2489	
Benson	4459	4505	
**All Depths shown above are from the pilot hole log well# 47-033-05556 located on the same 3 well pad.			
Sycamore	6381	6426	
Tully LS	6968	7048	
Marcellus Shale	7162	11,893	MD-TD

WR-35
Rev (5-01)

DATE: 1/15/13
API # : 47-035-03007

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Todd and Christopher Van Fosson Operator Well No.: HR 470

LOCATION: Elevation: 669' Quadrangle: Liverpool WV 7.5'

District: Ravenswood County: Jackson
Latitude: 4497' Feet South of 38 Deg. 57 Min. 30 Sec.
Longitude 3102' Feet West of 81 Deg. 35 Min. 00 Sec.

Company: Hard Rock Exploration

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 1244 Martins Branch Road				
Charleston WV, 25312	20"	19'	19'	N/A
Agent: Marc Scholl	13 3/8"	83'	83'	73cuft CTS
Inspector: Jamie Stevens	9 5/8"	633'	633'	300 ft3 CTS
Date Permit Issued:	7"	2414'	2414	517 ft3 CTS
Date Well Work Commenced: 10/10/12	4.5"	7905'	7905	115 ft3
Date Well Work Completed: 12/11/12				
Verbal Plugging:	Gamma Log from (3470'MD(kop) – 4460'MD, 4103(Land)			
Date Permission granted on:	Ran Gyro Log from (3450' – Surface)			
Rotary x Cable Rig				
Total Depth (feet): 7964'TMD, 4103'TVD				
Fresh Water Depth (ft.): 30', 140'				
Salt Water Depth (ft.): 1280' (wat/crude), 1650', 1700'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				

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OPEN FLOW DATA

Producing formation Lower Huron Shale Pay zone depth (ft) 4432'MD- 7964 'MD
4072'TVD – 4103' TVD

Gas: Initial open flow 200 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow >1.5 MMCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 72 Hours
Static rock Pressure 1240 psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: _____
By: President
Date: 2/20/2013

35-03007

Formation:	Top:	Bottom:
Soil/Sand/Shale	0	1633
Salt Sand	1685	1890
Big Lime	1890	1932
Injun/Squaw	1932	2000
Shale	2000	2330
Coffee Shale	2330	2350
Devonian Shale	2350	4103
Lower Huron Section	4030	4103

All depths shown As TVD

10/20/12 Run casing with 17 stg Peak mechanical packer system

10/21/12 Finish running casing at 12:00pm to depth of 7905'set at 7911'kb. MIRU Nabors Packer Set Crew. Drop balls for circ shoe and pump N2 to pressure up to 3000 psi. Gas rate on 7" shut off while pumping. Shut down at 3000 psi and hold pressure for 20-30 min to ensure packer operation. Continue pumping and bring pressure up to 4020 psi to open shoe.

NOTE: THERE ARE NO PERFORATED INTERVALS IN THIS STYLE OF COMPLETION. THE PACKERS WILL SERVE AS STAGE ISOLATION AND THE BALL ACTIVATED MECHANICAL SLEEVES SERVE AS THE MEANS OF COMMUNICATION FROM WELLBORE TO FORMATION. ALL DEPTHS ARE INDICATED BELOW.

Stage	Packer	Sleeve	Sleeve ID	Ball
1	7735.78	7911.33	P/O Shoe	N/A
2	7515.95	7607.1	1.156	1.25
3	7296.12	7387.27	1.281	1.375
4	7117.89	7209.14	1.406	1.5
5	6898.06	6989.21	1.531	1.625
6	6678.23	6769.38	1.656	1.75
7	6458.4	6549.55	1.781	1.875
8	6238.57	6329.72	1.906	2
9	6018.74	6109.89	2.031	2.125
10	5798.91	5890.06	2.156	2.25
11	5537.38	5670.23	2.281	2.375
12	5317.45	5408.7	2.406	2.5
13	5095.02	5188.77	2.531	2.75
14	4872.59	4963.74	2.781	3
15	4652.66	4743.91	3.031	3.25
16	4432.63	4523.78	3.281	3.5
17	*4213*	*4304.15*	*3.531*	*3.75*
	2714.85			

12/10/12. MIRU Nabors Cmt Crew. Blow down 7" casing (75psi). RU and dump squeeze with 20 bbls type 1 3% CaCl mixed at 15.2ppg. Follow with 2 bbl water. RDMO Nabors – finish at 6:30-7:00pm.

12/11/12 MIRU Nabors. Pressure test iron. Start pumping at 7:10am at half rate on Stg 1. Pump 430 Mcf at 42k scf/min at 5500 psi. Shut down and change isolation valve. Resume pumping on Stg 1. Open wellhead at 2500 psi. Pump total of 1MM scf N2. Shut down and drop 1.25" ball for Stg 2. Start pumping ball to sleeve at 20k scf/min and land ball at 170k scf at 3500 psi. Up rate and open sleeve at 4292 psi. Up rate to 53k scf/min and pump total of 1MM scf N2. Shut down and drop 1.375" ball for Stg 3. Pump ball to seat- open sleeve and and pump total of 1MMscf N2 at rate dictated by pressure. Repeat process for Stg 4 – Stg 16. Did not Frac stage 17.

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8
Max P	5530	5588	5755	5758	5618	5901	5947	6033
Avg P	4992	5295	5595	5657	5548	5451	5816	5883
Max R	57.6	53.6	52.4	46.7	44.7	45.3	48.4	41.0
Avg R	51.4	45.1	46.1	43.2	43.7	45.0	42.3	34.6
5 Min		2855	3299	N/A	N/A	3132	2794	2813

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	Stage 9	Stage 10	Stage 11	Stage 12	Stage 13	Stage 14	Stage 15	Stage 16
Max P	5867	5604	5806	5961	5950	4986	5585	5960
Avg P	5606	5014	5498	5835	5796	4923	5489	5862
Max R	54.0	103.0	103.3	102.6	106.0	103.0	103.0	91.2
Avg R	44.6	90.6	99.5	92.8	102.0	101.0	101.0	83.3
5 Min	2553	N/A	N/A	2034	N/A	N/A	2412	2200

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

API # 4704502228

arm Name W.W. McDonald Land Company
ocation Elevation
istrict Unknown
atitude Degree Minutes Seconds
ongitude West Degree Minutes Seconds

Well Number 512373
QUAD Man
County Logan,WV
WV

ompany EQT Plaza
Suite 1700
625 Liberty Avenue
Pittsburgh, Pa 15222

Longitude 37.87187
Latitude -81.87187

Agent Cecil Ray
Inspector Bill Nehr
'ermit Issued 3/23/2009
/ell Work Commenced 6/17/2010
/ell Work Completed 8/27/2010
erbal Plugging
otary Rig X Rotary Rig
otal Depth TVD: 4025' MD: 8,132.00

Casing &Tubing Size	Used in Drilling	Left in Well	Cement Cubic FT
18	22.00	22.00	
13 3/8	63.00	63.00	
9 5/8	408.00	408.00	206.50
7	2087.00	2,087.00	464.00
4 1/2	8084.00	8,084.00	

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Type	From
Fresh Water	88.00
Fresh Water	130.00
Salt Water	449.00
Salt Water	950.00

Type	From		
coal	88.00 ft. -	89.00	ft.
coal	265.00 ft. -	266.00	ft.

Producting Formation

Gas: Initial Open Flow 1163

Final Open Flow 5054

Static Rock Pressure 640

NOTE: On back of this form put the following
1) Details of Perforated intervals, fracturing or stimulating, physical change,etc.
2) The well log, a systematic detailed geologfical record of all formations including coal encountered in the well bore

For EQT Production Company
By Mike Butcher
Date 9-14-2010

45-02228

Formation record

Formation Name	Top	Bottom	Thickness
OVERBURDEN	0.00	63.00	63.00
SANDSTONE	63.00	88.00	25.00
COAL	88.00	89.00	1.00
SANDSTONE	89.00	125.00	36.00
SANDY SHALE	125.00	265.00	140.00
COAL	265.00	266.00	1.00
SANDSTONE	266.00	285.00	19.00
SANDY SHALE	285.00	300.00	15.00
SANDSTONE	300.00	330.00	30.00
SANDY SHALE	330.00	380.00	50.00
SANDSTONE	380.00	425.00	45.00
SANDY SHALE	425.00	764.00	339.00
SALT SAND	764.70	1,267.00	502.30
UPPER MAXTON SAND	1,592.00	1,945.00	353.00
LOWER MAXTON SAND	1,945.00	2,025.00	80.00
LITTLE LIME	2,025.00	2,066.00	41.00
BIG LIME	2,082.00	2,317.00	235.00
WEIR SAND	2,440.73	2,568.00	127.27
SUNBURY	2,881.00	2,919.00	38.00
BEREA SAND	2,919.00	2,946.00	27.00
UPPER DEVONIAN	2,943.69		
UPPER HURON SHALE	2,947.00	3,970.00	1,023.00
GORDON SAND	3,292.03	3,975.00	682.97
LOWER HURON SHALE	3,969.00	4,381.00	412.00
L HURON SILTSTONE	3,998.00	4,034.00	36.00
JAVA SHALE	4,381.00	4,520.00	139.00
ANGOLA SHALE	4,520.00	4,757.00	237.00
RHINESTREET SHALE	4,757.00		

Gas Tests

Depth	Gas	Comments
2,025.00	0	Trace
2,350.00	0	Trace
2,600.00	0	Trace
2,975.00	0	Trace
3,381.00	0	Trace
4,366.00	60	2/10ths thru 2"
6,060.00	407	93/10ths thru 2"
6,347.00	307	53/10ths thru 2"
7,676.00	1838	
8,132.00	1163	48/10ths on 4"

Questions regarding formations can be directed to Jonette Speranzo.
Jsperanzo@eqt.com

45-02228

Stage	Formation	Frac Type			
1	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	7918 - 8084		4,896.00	5,877.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
104,348.00	6,193.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	0.00	1,005,046.00			

Stage	Formation	Frac Type			
2	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	7685 - 7918		4,123.00	5,935.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
107,744.00	6,109.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	7.20	1,001,301.00			

Stage	Formation	Frac Type			
3	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	7452 - 7685		3,721.00	5,866.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
106,528.00	5,997.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.20	1,001,835.00			

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Stage	Formation	Frac Type			
4	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	7175 - 7452		3,859.00	5,315.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
101,812.00	5,529.00		0.943		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.10	1,007,905.00			

Stage	Formation	Frac Type			
5	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	6943 - 7175		3,645.00	4,955.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
106,414.00	5,050.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.30	1,003,874.00			

Stage	Formation	Frac Type			
6	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	6668 - 6943		3,791.00	4,750.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
105,570.00	4,829.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.20	1,006,300.00			

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Stage	Formation	Frac Type			
7	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	6435 - 6668		3,187.00	4,690.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
107,410.00	4,797.00	2,235.00	0.642		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.20	1,001,665.00			

Stage	Formation	Frac Type			
8	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	6162 - 6435		3,066.00	5,152.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
106,192.00	5,306.00	2,645.00	0.76		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.30	1,007,339.00			

Stage	Formation	Frac Type			
9	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	5928 - 6162		3,320.00	4,656.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
108,533.00	4,753.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.20	1,005,057.00			

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Stage	Formation	Frac Type			
10	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	5695 - 5928		3,479.00	4,894.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
107,783.00	5,101.00	2,531.00	0.728		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.90	1,005,519.00			

Stage	Formation	Frac Type			
11	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	5419 - 5695		3,386.00	4,550.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
107,764.00	4,551.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.00	1,006,729.00			

Stage	Formation	Frac Type			
12	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	5190 - 5419		3,465.00	4,463.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
106,334.00	4,526.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.20	1,004,263.00			

45.02228

Stage	Formation	Frac Type			
13	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/25/2010	4914 - 5190		3,273.00	4,497.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
107,529.00	4,559.00	2,400.00	0.688		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.00	1,004,579.00			

Stage	Formation	Frac Type			
14	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/26/2010	4680 - 4914		3,235.00	4,335.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
108,079.00	4,390.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.00	1,005,695.00			

Stage	Formation	Frac Type			
15	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/26/2010	4407 - 4680		3,462.00		5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
105,743.00	4,200.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.20	1,003,686.00			

Stage	Formation	Frac Type			
16	LOWER HURON SILT	N²			

45.02228

Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/26/2010	4173 - 4407		3,329.00		5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
106,660.00	4,224.00	2,150.00	0.619		
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
	6.10	1,005,977.00			

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

API # 4704502305

45-02305

Farm Name	Cole & Crane Real Estate Trust	Well Number	511884
Location Elevation	905	QUAD	Holden
District	Unknown	County	Logan,WV
Latitude 11940	Degree 37 Minutes 47 Seconds 30		WV
Longitude 1830	East Degree 82 Minutes 0 Seconds 0		
Company	EQT Plaza Suite 1700 625 Liberty Avenue Pittsburgh, Pa 15222	Longitude	37.75882
		Latitude	-82.00636
Agent	Cecil Ray		
Inspector	Ralph Tripplett		
Permit Issued	2/29/2008		
Well Work Commenced	5/17/2010		
Well Work Completed	8/30/2010		
Verbal Plugging			
Rotary Rig	X Rotary Rig		
Total Depth TVD: 4065'	7,519.00		

Casing &Tubing Size	Used In Drilling	Left in Well	Cement Cubic FT
13 3/8	90.00	90.00	
9 5/8	636.00	636.00	283.20
7	2141.00	2,141.00	571.10
4 1/2	7482.00	7,482.00	

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Office of Oil & Gas
FEB 21 2013
WV Department of
Environmental Protection

Type	From
Fresh Water	150.00
Salt Water	1,440.00
Salt Water	2,000.00

Type	From		
Coal	150.00 ft. -	152.00	ft.
Coal	560.00 ft. -	562.00	ft.

Producting Formation

Gas: Initial Open Flow	119
Final Open Flow	882
Static Rock Pressure	830

NOTE: On back of this form put the following
1) Details of Perforated intervals, fracturing or stimulating, physical change,etc.
2) The well log, a systematic detailed geologfical record of all formations including coal encountered in the well bore

For EQT Production Company
By Mike Rutcher
Date 9/16/2010

45-02305

Formation record

Formation Name	Top	Bottom	Thickness
SAND AND SHALE	0.00	150.00	150.00
COAL	150.00	152.00	2.00
SAND AND SHALE	152.00	560.00	408.00
COAL	560.00	562.00	2.00
SAND AND SHALE	562.00	831.00	269.00
SALT SAND	831.00	1,520.00	689.00
UPPER MAXTON SAND	1,613.00	1,695.00	82.00
MIDDLE MAXTON SAND	1,896.00	1,925.00	29.00
LOWER MAXTON SAND	1,996.00	2,074.00	78.00
LITTLE LIME	2,074.00	2,124.00	50.00
PENCIL CAVE SHALE	2,124.00	2,135.00	11.00
BIG LIME	2,135.00	2,413.00	278.00
WEIR SAND	2,517.00	2,582.00	65.00
SUNBURY	2,905.00	2,937.00	32.00
BEREA SAND	2,937.00	2,959.00	22.00
UPPER DEVONIAN	2,942.27		
LOWER HURON	3,953.00	4,299.00	346.00
JAVA	4,299.00		

Gas Tests

Depth	Gas	Comments
2,190.00	0	
3,442.00	1350	
3,442.00	2090	
3,442.00	179	18/10's thru 2"
4,437.00	207	24/10's Thru 2"
5,672.00	189	20/10's thru 2"
6,630.00	133	10/10's thru 2"
7,519.00	119	8/10's thru 2"

Questions regarding formations can be directed to Jonette Speranzo.
Jsperanzo@eqt.com

45-02305

Stage	Formation	Frac Type			
1	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	7319 - 7519		4,811.00	6,127.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
98,976.00	6,299.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
		1,002,092.00			

Stage	Formation	Frac Type			
2	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	7033 - 7319		3,904.00	5,945.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
102,573.00	6,003.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	7.10	1,003,421.00			

Stage	Formation	Frac Type			
3	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	6792 - 7033		3,861.00	5,742.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
104,760.00	5,768.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.30	1,002,898.00			

45-02305

Stage	Formation	Frac Type			
4	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	6507 - 6792		3,596.00	5,419.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
103,353.00	5,534.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.70	1,003,655.00			

Stage	Formation	Frac Type			
5	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	6221 - 6507		3,649.00	5,648.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
105,667.00	5,683.00	3,691.00			
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.40	1,004,707.00			

Stage	Formation	Frac Type			
6	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	5980 - 6221		3,690.00	5,498.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
105,092.00	5,587.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.50	1,002,328.00			

45-02305

Stage	Formation	Frac Type			
7	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	5695 - 5980		3,701.00	5,415.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
104,916.00	5,444.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.60	1,004,067.00			

Stage	Formation	Frac Type			
8	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	5409 - 5695		3,738.00	5,301.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
102,628.00	5,355.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.40	1,002,652.00			

Stage	Formation	Frac Type			
9	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	5168 - 5409		3,645.00	5,245.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
105,140.00	5,279.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.90	1,004,821.00			

45-02305

Stage	Formation	Frac Type			
10	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	4883 - 5168		3,653.00	5,059.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
104,167.00	5,180.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.30	1,002,532.00			

Stage	Formation	Frac Type			
11	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	4598 - 4883		3,557.00	4,851.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
103,129.00	4,879.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.30	1,002,058.00			

Stage	Formation	Frac Type			
12	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	4356 - 4598		3,632.00	5,164.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
103,911.00	5,316.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	2.70	1,002,473.00			

4502305

Stage	Formation	Frac Type			
13	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/19/2010	4071 - 4356		3,426.00	4,602.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
102,558.00	4,629.00	2,985.00			
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.50	1,002,891.00			

Stage	Formation	Frac Type			
14	BIG LIME	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
9/15/2010	2321 - 2331		5,949.00	3,687.00	5 Min: 2657
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
29,160.00	3,995.00	3,182.00	1.46		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
2,265,340.00	229.96	570,976.00	2.00		

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

API # 4704502333

Farm Name: Heartwood Forestland Fund — Well Number: 511766
Location Elevation: 852 — QUAD: Mallory
District: Unknown — County: Logan,WV
Latitude 9200 Degree 37 Minutes 42 Seconds 30 — WV
Longitude 8860 East Degree 81 Minutes 47 Seconds 30

Company: EQT Plaza
Suite 1700
625 Liberty Avenue
Pittsburgh, Pa 15222

Longitude: 37.68309
Latitude: -81.82219

Agent: Cecil Ray
Inspector: Tom Morris
Permit Issued: 1/25/10
Well Work Commenced: 6/18/2010
Well Work Completed: 8/19/2010
Verbal Plugging:
Rotary Rig: X Rotary Rig:
Total Depth TVD: 4079' MD: 7,497.00

Casing &Tubing Size	Used In Drilling	Left in Well	Cement Cubic FT
18	22.00	22.00	
13 3/8	95.00	95.00	
9 5/8	510.00	510.00	259.20
7	2093.00	2,093.00	476.50
4 1/2	7458.00	7,458.00	

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Environmental Protection

Type	From
Fresh Water	133.00
Salt Water	2,000.00

Type	From		
Coal	133.00 ft. -	135.00	ft.

Producing Formation

Gas: Initial Open Flow 761
Final Open Flow 721
Static Rock Pressure 720

NOTE: On back of this form put the following
1) Details of Perforated intervals, fracturing or stimulating, physical change,etc.
2) The well log, a systematic detailed geologfical record of all formations including coal encountered in the well bore

For EQT Production Company
By: Mike Butcher
Date: 9-14-2010

45-02333

Formation record

Gas Tests

ormation Name	Top	Bottom	Thickness	Depth	Gas	Comments
ALT SAND	559.40	1,198.00	638.60	2,475.00	0	N/S
AVENCLIFF SAND	1,268.00	1,328.00	60.00	2,675.00	0	N/S
IPPER MAXTON SAND	1,448.00	1,613.00	165.00	3,050.00	0	TRACE
IIDDLE MAXTON SAND	1,688.00	1,830.00	142.00	3,454.00	0	TRACE
OWER MAXTON SAND	1,938.00	1,979.00	41.00	3,858.00	0	ODOR
ITTLE LIME	2,022.00	2,078.00	56.00	3,917.00	0	ODOR
IG LIME	2,094.00	2,430.00	336.00	4,350.00	0	N/S
VEIR SAND	2,516.00	2,631.00	115.00	4,993.00	0	N/S
UNBURY	2,956.00	2,980.00	24.00	6,096.00	1592	90/10 THUR 4"
EREA SAND	2,980.00	3,014.00	34.00	6,341.00	712	18/10 THRU 4"
JPPER DEVONIAN	3,015.25					
GORDON SAND	3,288.00	3,318.00	30.00			
.OWER HURON SHALE	4,054.00	4,516.00	462.00			
. HURON SILTSTONE	4,066.00	4,138.00	72.00			
AVA SHALE	4,516.00	4,670.00	154.00			
NGOLA SHALE	4,670.00	4,902.00	232.00			
HINESTREET SHALE	4,902.00					

Questions regarding formations can be directed to Jonette Speranzo.
Jsperanzo@eqt.com

45-02333

Stage	Formation	Frac Type			
1	LOWER HURON SILT	N²			

Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/12/2010	7296 - 7458		4,309.00	5,885.00	5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
102,094.00	6,118.00				

Sand Proppant	Water-bbl	SCF N2	Acid-Gal
		1,001,276.00	

Stage	Formation	Frac Type			
2	LOWER HURON SILT	N²			

Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/12/2010	7011 - 7296		3,283.00	5,417.00	5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
105,172.00	5,557.00				

Sand Proppant	Water-bbl	SCF N2	Acid-Gal
	5.50	1,001,845.00	

Stage	Formation	Frac Type			
3	LOWER HURON SILT	N²			

Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/12/2010	6769 - 7011		3,023.00	4,851.00	5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
105,178.00	4,955.00				

Sand Proppant	Water-bbl	SCF N2	Acid-Gal
	5.00	1,003,383.00	

45-02333

Stage	Formation	Frac Type			
4	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/12/2010	6484 - 6769		3,099.00	4,625.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
103,213.00	4,712.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.60	1,001,878.00			

Stage	Formation	Frac Type			
5	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/12/2010	6200 - 6484		3,163.00	4,532.00	5 Min: 1566
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
102,521.00	4,630.00	2,476.00			
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.00	1,003,788.00			

Stage	Formation	Frac Type			
6	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/12/2010	5915 - 6200		3,045.00	5,170.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
101,694.00	5,346.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.90	1,001,649.00			

45-02333

Stage	Formation	Frac Type			
7	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/12/2010	5674 - 5915		3,185.00	4,709.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
102,568.00	4,769.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.10	1,001,971.00			

Stage	Formation	Frac Type			
8	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/12/2010	5388 - 5674		3,365.00	4,769.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
102,866.00	4,843.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.30	1,001,901.00			

Stage	Formation	Frac Type			
9	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/12/2010	5103 - 5388		3,298.00	4,825.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
101,956.00	4,872.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	7.50	1,002,720.00			

45.02333

Stage	Formation	Frac Type			
10	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/12/2010	4817 - 5103		3,303.00	4,252.00	5 Min: 1675
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
104,273.00	4,316.00	2,130.00			
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.90	1,002,937.00			

Stage	Formation	Frac Type			
11	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/12/2010	4576 - 4817		3,122.00	5,085.00	5 Min: 1728
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
103,548.00	5,178.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.60	1,000,709.00			

Stage	Formation	Frac Type			
12	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/12/2010	4291 - 4576		3,201.00	4,409.00	5 Min: 1164
					10 Min: 1140
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min: 1128
107,309.00	4,571.00	2,001.00			
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.00	1,001,461.00			

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

API # 4704502334
45-02334

Farm Name	Heartwood Forest Land Fund	Well Number	511764
Location Elevation	852	QUAD	Mallory
District	Unknown	County	Logan,WV
Latitude 9200	Degree 37 Minutes 42 Seconds 30		WV
Longitude 8880	East Degree 81 Minutes 47 Seconds 30		

Company EQT Plaza
Suite 1700
625 Liberty Avenue
Pittsburgh, Pa 15222

Longitude 37.68309
Latitude -81.82226

Agent Cecil Ray
Inspector Tom Morris
Permit Issued 1/25/2010
Well Work Commenced 6/11/2010
Well Work Completed 8/18/2010
Verbal Plugging
Rotary Rig X Rotary Rig
Total Depth TVD: 4428' MD: 7,858.00

Casing &Tubing Size	Used In Drilling	Left in Well	Cement Cubic FT
18 5/8	22.00	22.00	
13 3/8	102.00	102.00	
9 5/8	512.00	512.00	289.10
7	2079.00	2,079.00	474.20
4 1/2	7744.00	7,744.00	

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Office of Oil & Gas
FEB 21 2013
WV Department of
Environmental Protection

Type	From
Fresh Water	250.00

Type	From		
Coal	5.00 ft. -	15.00	ft.
Coal	83.00 ft. -	85.00	ft.
Coal	131.00 ft. -	133.00	ft.

Producting Formation

Gas: Initial Open Flow 2543

Final Open Flow 4385

Static Rock Pressure 455

NOTE: On back of this form put the following
1) Details of Perforated intervals, fracturing or stimulating, physical change,etc.
2) The well log, a systematic detailed geological record of all formations including coal encountered in the well bore

For EQT Production Company
By Mike Rutherford
Date 9-14-2010

45-02334

Formation record

Gas Tests

ormation Name	Top	Bottom	Thickness	Depth Gas		Comments
)VER BURN	0.00	5.00	5.00	2,489.00	0	Trace
:OALBED METHANE	5.00	15.00	10.00	2,676.00	0	Trace
)VER BURN	15.00	83.00	68.00	3,057.00	0	Trace
:OALBED METHANE	83.00	85.00	2.00	3,802.00	0	Trace
)VER BURN	85.00	131.00	46.00	4,850.00	0	Trace
:OALBED METHANE	131.00	133.00	2.00	6,119.00	2909	44/10ths thru 7"
:AND STONE	133.00	270.00	137.00	7,858.00	2543	22/10ths thru 4 1/2
:ANDY SHALE	270.00	504.00	234.00			
:ALT SAND	504.00	1,198.00	694.00			
:AVENCLIFF SAND	1,268.00	1,328.00	60.00			
IPPER MAXTON SAND	1,448.00	1,613.00	165.00			
4IDDLE MAXTON SAND	1,688.00	1,830.00	142.00			
.OWER MAXTON SAND	1,938.00	1,979.00	41.00			
.ITTLE LIME	2,022.00	2,078.00	56.00			
3IG LIME	2,094.00	2,430.00	336.00			
VEIR SAND	2,516.00	2,631.00	115.00			
3UNBURY	2,956.00	2,980.00	24.00			
3EREA SAND	2,980.00	3,014.00	34.00			
JPPER DEVONIAN	3,015.25					
3ORDON SAND	3,288.00	3,318.00	30.00			
.OWER HURON SHALE	4,054.00	4,516.00	462.00			
. HURON SILTSTONE	4,066.00	4,138.00	72.00			
IAVA SHALE	4,516.00	4,670.00	154.00			
\NGOLA SHALE	4,670.00	4,902.00	232.00			
RHINESTREET SHALE	4,902.00					

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FEB 21 2013

WV Department of
Environmental Protection

Questions regarding formations
Can be directed to Jonette Speranzo
Jsperanzo@eqt.com
or
412-395-3941

45-02334

Stage	Formation	Frac Type			
1	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	7575 - 7734		4,215.00	6,361.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
95,709.00	6,412.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
		1,000,532.00			

Stage	Formation	Frac Type			
2	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	7335 - 7575		4,097.00	6,008.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
96,776.00	6,323.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.70	1,002,142.00			

Stage	Formation	Frac Type			
3	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	7050 - 7335		3,877.00	6,068.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
85,271.00	6,460.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	8.20	1,001,686.00			

45-02334

Stage	Formation	Frac Type			
4	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	6810 - 7050		4,037.00	6,003.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
90,856.00	6,390.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.60	1,003,181.00			

Stage	Formation	Frac Type			
5	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	6569 - 6810		3,845.00	6,209.00	5 Min: 2757
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
82,452.00	6,435.00	4,164.00	1.1		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	11.90	1,001,662.00			

Stage	Formation	Frac Type			
6	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	6285 - 6569		4,191.00	6,268.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
75,545.00	6,397.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.60	1,001,394.00			

45-02334

Stage	Formation	Frac Type			
7	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	6045 - 6285		4,428.00	5,814.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
98,560.00	5,961.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.40	1,002,418.00			

Stage	Formation	Frac Type			
8	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	5805 - 6045		3,803.00	6,268.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
90,245.00	6,405.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.50	1,002,000.00			

Stage	Formation	Frac Type			
9	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	5519 - 5805		4,224.00	5,994.00	5 Min: 2531
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
98,505.00	6,225.00	3,650.00	0.964		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	7.20	1,001,782.00			

45-02334

Stage	Formation	Frac Type			
10	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	5279 - 5519		3,873.00	5,796.00	5 Min: 2491
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
102,199.00	5,909.00	3,359.00	0.887		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.00	1,002,184.00			

Stage	Formation	Frac Type			
11	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	4995 - 5279		4,030.00	5,477.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
105,922.00	5,717.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.80	1,001,412.00			

Stage	Formation	Frac Type			
12	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	4754 - 4995		3,970.00	5,118.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
104,810.00	5,177.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.50	1,001,609.00			

45-02334

Stage	Formation	Frac Type			
13	LOWER HURON	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/11/2010	4514 - 4754		3,677.00	5,473.00	5 Min: 2325
					10 Min: 2126
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min: 2026
104,356.00	5,667.00	3,310.00			
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.70	1,001,730.00			

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: February 5, 2013
API #: 47-051-01437

Farm name: Corley Operator Well No.: 2H

LOCATION: Elevation: 1272' Quadrangle: Powhatan Point 7.5'

District: Franklin County: Marshall
Latitude: 14,155 Feet South of 39 Deg. 47 Min. 30 Sec.
Longitude 3,750 Feet West of 80 Deg. 45 Min. 00 Sec.

Company: Gastar Exploration USA, Inc.

Address: 229 West Main Street, Suite 301	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Clarksburg, WV 26301	20"	40'	40'	CTS
Agent: Michael McCown	13-3/8"	1017'	1017'	975'
Inspector: Carl McCune	9-5/8"	2494'	2494'	906'
Date Permit Issued: 04/05/2011	5-1/2"	12,152	12,152'	3229'
Date Well Work Commenced: 07/21/2011				
Date Well Work Completed: 11/17/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary ☐ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 6632'				
Total Measured Depth (ft): 12,152'				
Fresh Water Depth (ft.): 60'				
Salt Water Depth (ft.): 1600'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): refer to page 2				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)
Producing formation Marcellus Pay zone depth (ft) 6835'
Gas: Initial open flow 2028 MCF/d Oil: Initial open flow 38 Bbl/d
Final open flow 2413 MCF/d Final open flow 45 Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 2265 csg. psig (surface pressure) after _____ Hours

Second producing formation none Pay zone depth (ft)_____
Gas: Initial open flow_____ MCF/d Oil: Initial open flow_____ Bbl/d
Final open flow_____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests_____ Hours
Static rock Pressure_____ psig (surface pressure) after _____ Hours

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Environmental Protection

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Michael McCown
Signature

2/25/2013
Date

51-01437

Were core samples taken? Yes_____ No X Were cuttings caught during drilling? Yes X No_____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list
YES : GR, Mudlog, Acousti, Density, Induction, Mech Prop, & XMAC

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered: Top Depth / Bottom Depth
Surface:

Sewickley:	Top:885, Base: 905	Java:	5378, 5698
Pittsburgh coal:	1061, 1071	Rhinestreet:	6190, 6500
Maxton:	1980, 2030	Cashaqua:	6547, 6692
Big Lime:	2043, 2073	Middlesex:	6642, 6662
Big Injun:	2079	West River:	6664, 6724
Base of Big Injun:	2223	Geneseo:	6726, 6744
Weir:	2397, 2567	Tully:	6740, 6775
Berea:	2581, 2821	Hamilton:	6786, 6836
Gordon:	2855, 2885	Marcellus:	6835, 6888
Benson:	3617, 3627	Onondaga:	6889, NA (TD'd before base)

51-01437

Well Name: Corley 2H
Permit #: 47-051-01437

	Interval Perforated			Stimulation Summary				
Date	From	To	Date	Fluid	Amount	Proppant	Amount	AVG Rate
9/14/2011	12083	11877	10/10/2011	SLK WTR	9341	100m & 40/70	378110	87
10/10/2011	11787	11577	10/10/2011	SLK WTR	8872	100m & 40/70	380183	87
10/11/2011	11487	11277	10/11/2011	SLK WTR	8829	100m & 40/70	375681	85
10/11/2011	11187	10977	10/11/2011	SLK WTR	8894	100m & 40/70	375250	87
10/12/2011	10887	10677	10/12/2011	SLK WTR	8644	100m & 40/70	374862	87
10/12/2011	10587	10377	10/12/2011	SLK WTR	8901	100m & 40/70	374226	88
10/13/2011	10287	10077	10/13/2011	SLK WTR	8913	100m & 40/70	374366	88
10/13/2011	9987	9777	10/13/2011	SLK WTR	8722	100m & 40/70	374079	89
10/14/2011	9687	9477	10/14/2011	SLK WTR	9534	100m & 40/70	384975	88
10/14/2011	9387	9177	10/14/2011	SLK WTR	8594	100m & 40/70	376862	88
10/14/2011	9087	8877	10/14/2011	SLK WTR	8880	100m & 40/70	378310	91
10/15/2011	8787	8577	10/15/2011	SLK WTR	8608	100m & 40/70	374321	89
10/15/2011	8487	8277	10/15/2011	SLK WTR	9138	100m & 40/70	372451	90
10/16/2011	8187	7977	10/16/2011	SLK WTR	9051	100m & 40/70	374696	91
10/16/2011	7887	7677	10/16/2011	SLK WTR	9225	100m & 40/70	376308	88
10/17/2011	7587	7377	10/17/2011	SLK WTR	9079	100m & 40/70	373125	87
10/18/2011	7287	6937	10/18/2011	SLK WTR	8774	100m & 40/70	373700	88

WR-35 API # 47 - 047-02332

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm Name : Plum Creek Timberlands Operator Well No. : 149

LOCATION: Elevation: 2091.24' Quadrangle: War

District: Big Creek County: McDowell

Latitude: 8721 Feet South of 37 Deg. 22 Min. 30 Sec.

Longitude: 10202 Feet West of 81 Deg. 42 Min. 30 Sec.

Company: Classic Oil and Gas Resources
416 West Brannon Road
Nicholasville, KY 40356-8845

Agent: ROBERT INGHRAM

Inspector: Barry Stollings
Permit Issued: 10-11-06
Well Work Commenced: 01-03-07
Well Work Completed: 01-15-07
Verbal Plugging
Permission granted on: N/A
Rotary X Cable ____ Rig
Total Depth (feet) 4080'
Fresh water depths (ft) 940

Salt water depths (ft) None

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 940

Casing & Tubing	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
Size 12 3/4"	22'	22'	n/a
9 5/8"	0'	0'	n/a
7"	1706'	1706'	235 sks
4 1/2"	3978'	3978'	140sks

OPEN FLOW DATA

Producing formation Pay zones not drilled Pay zone depth (ft) See Back

Gas: Initial open flow n/a MCF/d Oil: Initial open flow s0 Bbl/d

Final open flow n/a MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests n/a Hours

Static rock Pressure n/a psig (surface pressure) after 24 Hours

Second producing formation ____ Pay zone depth (ft) ____

Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d

Final open flow ____ MCF/d Final open flow ____ Bbl/d

Time of open flow between inital and final tests ____ Hours

Static rock Pressure ____ psig (surface pressure) after ____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1).DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) . THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

CLASSIC OIL & GAS RESOURCES, INC.
BY: William Kelly
Date: 02-21-13

47-02332

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

01-14-07: Had to run 4 ½" csg. shallow to save badly caving hole. When possible, will have to slim hole drill through Berea to complete pay zones in Berea & Big Lime. Well temporarily completed until that time.

FORMATION	TOP	BOTTOM	OIL, GAS, WATER
Pennsylvanian Sands, shales, coals	0'	1828'	
Salt Sand	—	—	
Ravencliff	2272'	2375'	
Upper Maxton	2540'	2564'	
Middle Maxton	3000'	3048'	
Lower Maxton	3254'	3298'	
Big Lime	3548'	4030' TD	

WR-35 API # 47 - 047-02384

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm Name : Plum Creek Timberlands Operator Well No. : 173

LOCATION: Elevation: 1873.56' Quadrangle: Bradshaw

District: Big Creek County: McDowell

Latitude: 11719 Feet South of 37 Deg. 20 Min. 00 Sec.

Longitude: 1480 Feet West of 81 Deg. 45 Min. 00 Sec.

Company: Classic Oil and Gas Resources
416 West Brannon Road
Nicholasville, KY 40356-8845

Agent: ROBERT INGHRAM

Inspector: Barry Stollings
Permit Issued: 03-27-07
Well Work Commenced: 03-31-07
Well Work Completed: 06-17-07
Verbal Plugging
Permission granted on: N/A
Rotary X Cable ____ Rig
Total Depth (feet) 6290'
Fresh water depths (ft) 700

Salt water depths (ft) None

Is coal being mined in area (Y/N)? N
Coal Depths (ft): No Record

Casing & Tubing	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
Size 12 3/4"	20'	20'	n/a
9 5/8"	0'	0'	n/a
7"	1190'	1190'	225 sks
4 1/2"	5200'	5200'	118sks

OPEN FLOW DATA

Producing formation Pay zones not yet completed Pay zone depth (ft) See Back

Gas: Initial open flow n/a MCF/d Oil: Initial open flow s0 Bbl/d

Final open flow n/a MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests n/a Hours

Static rock Pressure n/a psig (surface pressure) after 24 Hours

Second producing formation ____ Pay zone depth (ft) ____

Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d

Final open flow ____ MCF/d Final open flow ____ Bbl/d

Time of open flow between inital and final tests ____ Hours

Static rock Pressure ____ psig (surface pressure) after ____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1).DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) . THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

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CLASSIC OIL & GAS RESOURCES, INC.
BY: William Kelly
Date: 02-21-13

47-023844

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

04-26-07: Perf squeeze holes @ 4857'-82'. Attempt squeeze job, but cement locked up in 4 ½" csg @3552'. Temporarily completed at that point until cement can be drilled out and pay zones treated.

FORMATION	TOP	BOTTOM	OIL, GAS, WATER
Pennsylvanian Sands, shales, coals	0'	1302'	
Salt Sand	----	----	
Ravencliff	2071'	2146'	
Upper Maxton	2346'	2376'	
Middle Maxton	2880'	3014'	
Lower Maxton	3176'	3212'	
Big Lime	3438'	4110'	
Injun	----	----	
Weir	----	----	
Berea	4727'	4788'	
Gordon	4850'	4884'	
Devonian Shale	4788'	6290' TD	Gas at TD - Show

WR-35
Rev (5-01)

DATE: 1/11/13
API # : 47-087-04702

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: James B. Marshall Operator Well No.: HR 450

LOCATION: Elevation: 887' Quadrangle: Reedy WV 7.5'

District: Reedy County: Roane
Latitude: 14818' Feet South of 38 Deg. 55 Min. 00 Sec.
Longitude 5855' Feet West of 81 Deg. 25 Min. 00 Sec.

Company: Hard Rock Exploration

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 1244 Martins Branch Road				
Charleston WV, 25312				
Agent: Marc Scholl	13 3/8"	32'	32'	N/A
Inspector: Ed Gainer	9 5/8"	800'	800'	396 ft3 CTS
Date Permit Issued:	7"	2289'	2289'	514 ft3 CTS
Date Well Work Commenced: 8/22/12	4.5"	7477'	7477'	140 ft3
Date Well Work Completed: 9/7/13				
Verbal Plugging:	Ran Gamma Log from (3790'MD(kop) – 4831'MD (Land))			
Date Permission granted on:	Ran Gyro Log from (3650' – Surface)			
Rotary x Cable Rig	Ran OH Log from 1735' - Surface			
Total Depth (feet): 7553'TMD, 4500'TVD				
Fresh Water Depth (ft.): 450'				
Salt Water Depth (ft.): 1930', 2030'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				

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Environmental Protection

OPEN FLOW DATA

Producing formation Lower Huron Shale Pay zone depth (ft) 4606'MD- 7553 'MD
4445'TVD – 4500' TVD

Gas: Initial open flow 50 MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow >1.5 MMCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests 72 Hours
Static rock Pressure 1240 psig (surface pressure) after ____ Hours

Second producing formation ____ Pay zone depth (ft) ____
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow ____ MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock Pressure ____ psig (surface pressure) after ____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: James [illegible]
By: President
Date: 2/20/2013

87-04702

Formation:	Top:	Bottom:
Red Rock, Sand , Shale	0	1800
Salt Sands	1800	2080
Lime	2080	2110
Injun	2110	2165
Shale	2165	2452
Coffee Shale	2452	2467
Devonian Shale	2467	4310
Lower Huron Section	4310	TD

All Formation depths shown As TVD

08/31/12 Run Peak Completions pump out shoe with 14 stg open hole mechanical packers and frac sleeves. continue running casing total of 175 jts of R-3 4.5" 11.6ppf N-80 casing and frac packers to depth of 7477' GL and 7483' KB. start pumping 2 bbl water, drop ball for pump out shoe and follow with 2 bbl water. follow with N2 at 5000 scf/min. Land ball and pressure up to 3100psi. Hold pressure for 20 min. Continue to increase pressure to 3600 psi to shear pins in shoe. SWI. RU and perform annular squeeze with 100sx type 1 2% CaCl mixed at 14.6ppg. Follow with 3 bbl water.

NOTE: THERE ARE NO PERFORATED INTERVALS IN THIS STYLE OF COMPLETION. THE PACKERS WILL SERVE AS STAGE ISOLATION AND THE BALL ACTIVATED MECHANICAL SLEEVE SERVES AS THE MEANS OF COMMUNICATION FROM WELLBORE TO FORMATION. ALL DEPTHS ARE INDICATED BELOW.

Stage	Sleeve	Packer	Seat
1	7432.2	7341.1	N/A
2	7212.2	7121.1	1.15
3	6992.2	6901.1	1.28
4	6814.0	6722.9	1.40
5	6594.0	6502.9	1.53
6	6374.0	6282.9	1.65
7	6154.0	6062.9	1.78
8	5975.8	5884.7	2.03
9	5755.8	5664.7	2.28
10	5535.8	5444.7	2.53
11	5315.8	5224.7	2.78
12	5095.8	5004.7	3.03
13	4917.6	4826.5	3.28
14	4697.6	4606.5	3.53
Anchor		2591.0	

9/6/12 - 09/07/12 MIRU Nabors Frac Crew. Casing pressure 1240 psi. Bring trucks to half rate and start increasing slowly according to pressure response. Pump total of 1 MMscf for Stg 1. Shut down and bleed off lines. Place 1.25" ball on frac gate and equalize. Drop ball for Stg 2 and wait for ball to drop. Start pumping at 15k scf/min and up rate to 20k and 30k to land ball and open sleeve. Increase rate to 100k scf/min and pump total of 1 MMscf N2. Repeat process for Stg 3- Stg 14.

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
Max P	4712	4840	5100	5400	5808	5944	5825
Avg P	4616	4002	4932	5126	5618	5860	5722
Max R	91.5	106.1	104.6	103	102	84	103
Avg R	88.7	103.2	103.3	103	88	81	101
5 Min	1870	N/A	N/A	1866	N/A	2182	N/A
	Stage 8	Stage 9	Stage 10	Stage 11	Stage 12	Stage 13	Stage 14
Max P	5442	4518	4440	4281	4250	4120	4132
Avg P	5378	4493	4353	4254	4173	4097	4115
Max R	103	103	110	103.5	107	104.7	102.7
Avg R	101.7	101.7	106	103	104	104	102
5 Min	2195	N/A	N/A	N/A	1981	N/A	1993

WR-35
Rev (5-01)

DATE: 1/15/13
API # : 47-087-04706

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: John Edward Huffman Operator Well No.: HR 451

LOCATION: Elevation: 728' Quadrangle: Peniel WV 7.5'

District: Reedy County: Roane
Latitude: 6304' Feet South of 38 Deg. 52 Min. 30 Sec.
Longitude 1365' Feet West of 81 Deg. 27 Min. 30 Sec.

Company: Hard Rock Exploration

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 1244 Martins Branch Road				
Charleston WV, 25312	20"	21'	21'	N/A
Agent: Marc Scholl	13 3/8"	83'	83'	84cuft
Inspector: Ed Gainer	9 5/8"	672'	672'	336 ft3 CTS
Date Permit Issued: 9/1/2011	7"	2399'	2399'	519 ft3 CTS
Date Well Work Commenced: 9/26/12	4.5"	7344'	7344'	140 ft3
Date Well Work Completed: 10/18/12				
Verbal Plugging:	Ran Gamma Log from (3675'MD(kop) – 4841'MD (Land))			
Date Permission granted on:	Ran Gyro Log from (3600' – Surface)			
Rotary x Cable Rig				
Total Depth (feet): 7403'TMD, 4381'TVD				
Fresh Water Depth (ft.): 40', 481'				
Salt Water Depth (ft.): 1237', 1836'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				

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OPEN FLOW DATA

Producing formation Lower Huron Shale Pay zone depth (ft) 4227'MD- 7403 'MD
4154'TVD – 4381' TVD

Gas: Initial open flow 100 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow >1.5 MMCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 72 Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: James J. Hughes Jr.
By: President
Date: 2/20/2013

87-04706

Formation:	Top:	Bottom:
Soil/Sand/Shale	0	1580
Salt Sand	1580	1850
Big Lime	1850	1915
Injun/Squaw	1915	2080
Shale	2080	2337
Coffee Shale	2337	2350
Devonian Shale	2350	4370
Lower Huron Section	4170	4370

All depths shown As TVD

10/05/12 Run total of 162 jts of R-3 4.5" 11.6ppf N-80 to depth of 7344' KB. With 14stg openhole packer system. MIRU Nabors Packer set crew. Drop ball for pump out shoe and pressure up casing with N2 to set packers. Continue to pressure up to 4091 psi and open pump out shoe. Gas rate on 7" shut off (approx. 6 tenths 2") Dump squeeze on anchor packer with 100 sx type 1 cmt mixed at 15ppg.

NOTE: THERE ARE NO PERFORATED INTERVALS IN THIS STYLE OF COMPLETION. THE PACKERS WILL SERVE AS STAGE ISOLATION AND THE BALL ACTIVATED MECHANICAL SLEEVE SERVES AS THE MEANS OF COMMUNICATION FROM WELLBORE TO FORMATION. ALL DEPTHS ARE INDICATED BELOW.

Stage	Sleeve	Packer
1	7344	7165
2	7025	6932
3	6792	6699
4	6604	6511
5	6371	6278
6	6138	6045
7	5905	5812
8	5672	5579
9	5439	5347
10	5207	5114
11	5018	4881
12	4785	4692
13	4552	4460
14	4319	4227
Anchor		2668

10/18/12 MIRU Nabors Stimulation Crew. Wellhead pressure 1104psi. Pressure test and start pumping on Stg 1. Pump total of 1MM scf N2. Shut down. Load and drop 1.25" ball for Stg 2 off the gate. Start pumping ball down at 20k scf/min. Open sleeve Bring rate up to design of 100 kscf/min and pump total of 1MM scf N2. Shut down and drop 1.375" ball for Stg 3. Repeat process for Stgs 3 – Stg 14.

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
Max P	4766	4890	4992	5016	4829	4535	4795
Avg P	4749	4802	4830	4912	4780	4499	4701
Max R	104.2	103.3	103.3	104.6	105.2	105.2	105.0
Avg R	101.2	102.5	102.2	103.3	104.7	104.2	104.0
Shut In	1660-5m	1714-2m	1701-2m	N/A	1512-5m	N/A	1501-5m

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
	Stage 8	Stage 9	Stage 10	Stage 11	Stage 12	Stage 13	Stage 14
Max P	4598	4265	4041	4084	4231	4205	3957
Avg P	4571	4245	4023	4059	4225	4161	3949
Max R	103.0	104.0	104.0	106.0	108.0	109.0	107.0
Avg R	102.5	103.5	103.2	102.6	107.2	10.6	105.7
Shut In	N/A	N/A	1490-5m	N/A	N/A	1486-5m	1811-5m

87-04706

WR-35
Rev (5-01)

DATE: 1/15/13
API # : 47-087-04718

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Larry D. And Joyce Epling Operator Well No.: HR 475

LOCATION: Elevation: 1020' Quadrangle: Reedy WV 7.5'

District: Reedy County: Roane
Latitude: 7281' Feet South of 38 Deg. 55 Min. 00 Sec.
Longitude 7634' Feet West of 81 Deg. 22 Min. 30 Sec.

Company: Hard Rock Exploration

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 1244 Martins Branch Road				
Charleston WV, 25312				
Agent: Marc Scholl	13 3/8"	32'	32'	N/A
Inspector: Ed Gainer	9 5/8"	914'	914'	456 ft3 CTS
Date Permit Issued: 6/26/12	7"	2621'	2621'	564 ft3 CTS
Date Well Work Commenced: 9/5/12	4.5"	7560'	7560'	130 ft3
Date Well Work Completed: 10/5/12				
Verbal Plugging:	Ran Gamma Log from (3950'MD(kop) – 4984'MD Land)			
Date Permission granted on:	On first build section - later plugged back and started new			
Rotary x Cable Rig	Build section at shallower TVD.			
Total Depth (feet): 7614'TMD, 4401'TVD				
Fresh Water Depth (ft.): None - dry	Ran Gyro Log from 3700' - Surface			
Salt Water Depth (ft.): 1927'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				

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OPEN FLOW DATA

Producing formation Lower Huron Shale Pay zone depth (ft) 4531'MD- 7614 'MD
4362'TVD – 4401' TVD
Gas: Initial open flow 375 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow >1.5 MMCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 72 Hours
Static rock Pressure 1240 psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: _____
By: President
Date: 2/20/2013

87-04718

Formation:	Top:	Bottom:
RR/Sand/Shale	0	1875
Salt Sand	1875	2110
Big Lime	2110	2160
Big injun	2160	2180
Weir	2519	2525
Coffee Shale	2571	2587
Devonian Shale	2587	4530'
Lower Huron Section	4350	4530'

All depths shown As TVD

Initial KOP- 3950'MD
Initial Land – 4905'MD , 4530' TVD
Drilled to depth of 7418'MD and had downhole fire – left 60jts DP and BHA in hole.

09/15/12 Call out for Cmt crew to plug back. Start pumping 88 bbls Type 1 2% CaCl (75 bbl at 15 ppg, 13 at 15.6 ppg). Follow cmt with 2 bbl water. Well on suction. TOOH with 20 jts drill pipe back to 2148'. Blow through string with air. Wait on cmt to run Wireline and check top. Cmt top at 3000'

Final KOP 3756'
Final Land – 4780'MD, 4401'TVD
Drilled to depth of 7614'TMD

09/20/12. Run total of 177 jts of 4.5" R-3 11.6ppf N-80 casing to depth of 7560' set at 7566' KB. MIRU Nabors Packer set crew. Pressure test surface lines to 5000 psi. Start pumping 2 bbl water and drop ball for pump out shoe – follow with 2 bbl water and start pumping N2. Pressure up to 3000 psi with approx. 150k scf N2 at 5:50am. Hold pressure for 10 min and continue to pump N2 to pressure up to 4019 psi to open shoe. Pumped total of 198k scf. Finish opening shoe at 6:10am. Dump squeeze with 100 sx cmt mixed at 15ppg. Follow with 2 bbl water.

NOTE: THERE ARE NO PERFORATED INTERVALS IN THIS STYLE OF COMPLETION. THE PACKERS WILL SERVE AS STAGE ISOLATION AND THE BALL ACTIVATED MECHANICAL SLEEVE SERVES AS THE MEANS OF COMMUNICATION FROM WELLBORE TO FORMATION. ALL DEPTHS ARE INDICATED BELOW.

Stage	Sleeve	Sleeve ID	Ball Size	Packer
1	7559.25	P/O Shoe	N/A	7432.85
2	7299.95	1.15	1.250	7212.85
3	7079.95	1.28	1.375	6992.85
4	6859.95	1.40	1.500	6772.85
5	6639.95	1.53	1.625	6552.85
6	6461.75	1.65	1.750	6332.85
7	6199.95	1.78	2.000	3071.05
8	5938.15	2.03	2.250	5851.05
9	5718.15	2.28	2.500	5631.05
10	5498.15	2.53	2.750	5411.05
11	5278.15	2.78	3.000	5191.05
12	5058.15	3.03	3.250	4971.05
13	4838.15	3.28	3.500	4751.05
14	4618.15	3.53	3.750	4531.05
Anchor				2975.00

87-04718

10/05/12 Nabors Stim crew Pressure test lines (MIRU on 10/4/12). Open frac valve at 6:50am – 1226 psi casing pressure. Start pumping at half rate On Stg 1 and bring trucks in slowly. Pump total of 1MM scf N2 at 100k scf/min. Shut down and drop 1.25" ball for Stg 2 off of gate. Start pumping at 17k scf/min; Open sleeve and Bring to design rate of 100kscf/min and pump total of 1MM scf N2. Shut down and drop 1.375"ball for Stg 3 and repeat process for Stgs 3 – Stg 14.

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
Max P	5085	5050	5538	5634	5634	5683	5890
Avg P	4739	4781	5349	5567	5567	5580	5833
Max R	104	102	103	105	105	106	99
Avg R	98	99	101	101	103	101	97
Shut In	1705-10	1682-10	N/A	N/A	N/A	N/A	N/A
	Stage 8	Stage 9	Stage 10	Stage 11	Stage 12	Stage 13	Stage 14
Max P	4762	4550	4593	4616	4793	5120	4718
Avg P	4620	4470	4563	4537	4735	5074	4673
Max R	103	103	102	101	103	102	102
Avg R	100	100	101	100	102	101	101
Shut In	N/A	N/A	N/A	N/A	N/A	N/A	2136-5

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: February 20, 2013
API #: 47-073-00982F

Farm name: Delbert Elder Operator Well No.: Elder #1

LOCATION: Elevation: 651' ASI Quadrangle: Raven Rock 7.5'

District: Union County: Pleasants
Latitude: 4370 Feet South of 81 Deg. 10 Min. 00 Sec.
Longitude 1820 Feet West of 39 Deg. 25 Min. 00 Sec.

Company: Sancho Oil & Gas

Address: P. O. Box 179	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
St. Marys, WV 26170	8 5/8"	939	939	260 sks
Agent: Loren Bagley				
Inspector: Joe Taylor	4 1/2"		3871	700 sks
Date Permit Issued:				
Date Well Work Commenced: March 12, 2012				
Date Well Work Completed: March 31, 2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary ☐ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 3872				
Total Measured Depth (ft): 3872				
Fresh Water Depth (ft.): NA				
Salt Water Depth (ft.): Behind pipe Unknown				
Is coal being mined in area (N/Y)? No Coal				
Coal Depths (ft.): No Coal Present				
Void(s) encountered (N/Y) Depth(s)				

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OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)
Producing formation Squaw Sandstone Pay zone depth (ft) 1528-1534
Gas: Initial open flow 5 MCF/d Oil: Initial open flow 2 Bbl/d
Final open flow 100 MCF/d Final open flow 10 Bbl/d
Time of open flow between initial and final tests 72 Hours
Static rock Pressure 350 psig (surface pressure) after 96 Hours

Second producing formation Big Injun Sandstone Pay zone depth (ft) 1502-1520
Gas: Initial open flow see above MCF/d Oil: Initial open flow see above Bbl/d
Final open flow see above MCF/d Final open flow see above Bbl/d
Time of open flow between initial and final tests see above Hours
Static rock Pressure see above psig (surface pressure) after see above Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Loren E Bagley
Signature

February 20, 2013
Date

73-0098AF

Were core samples taken? Yes_____ No XX Were cuttings caught during drilling? Yes_____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Cased hole log only

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Well was a re-completion. Well had sufficient cement to re-complete in the Squaw and Big Injun sandstones. Shot with 20 holes 1526-1531. Frac job consisted of 5000 barrels of water, 500 sacks of sand. Fm. Break at 3080 PSI. Well treated between 3200 and 3800 PSI. Top sand concentration 2#/gal.

Plug Back Details Including Plug Type and Depth(s): solid plug set at 3001

Formations Encountered: Surface:	Top Depth	/ Bottom Depth
Cow Run Sand	526	564
2nd Cow Run Sand	626	642
1st Salt Sand	742	810
2nd Salt Sand	904	951
3rd Salt Sand	1182	1266
Maxon Sandstone	1272	1297
Little Lime	1340	1350
Big Limestone	1372	1422
Keener Sandstone	1434	1472
Big Injun Sandstone	1490	1511
Squaw Sandstone	1517	1524

WR-35
Rev (5-01)

DATE: August 10, 2010
API #: 47-097-03712

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: James R. Moore, et al. Operator Well James R. Moore #2 WV3013

LOCATION: Elevation: 1835' Quadrangle: Rock Cave 7.5

District: Banks County: Upshur

Latitude: 10,600' Feet South of 38 Deg. 50 Min. 00 Sec.
Longitude 9,175' Feet West of 80 Deg. 15 Min. 00 Sec.

Company: Seneca Upshur Petroleum Corp.

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P.O. Box 2048				
Buckhannon WV 26201	13 3/8"	32'	32'	Sand In
Agent: James Turner				
Inspector: Bill Hatfield	9 5/8"	1203'	1203'	488 Cu. Ft.
Date Permit Issued: February 03, 2010				
Date Well Work Commenced: March 10, 2010	4 ½"	7020'	7020'	138 Cu. Ft.
Date Well Work Completed: July 13, 2010				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): 7030'				
Fresh Water Depth (ft.): 65'- 320'- 840'				
Salt Water Depth (ft.): 1242'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 378'-380', 395'-398', 502'-507', 595'				

OPEN FLOW DATA

Producing formation Marcellus Pay zone depth (ft) 6905'- 7002'
Gas: Initial open flow 1500 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 2000 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 12 Hours
Static rock Pressure 2200 psig (surface pressure) after 24 Hours

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NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed:
By:
Date:

Stimulation Summary

97.03712

1st Stage –Slick Water Frac, Perforations Marcellus 6954'-6990' (216 holes)
1000 gal. 15 % HCL, Breakdown 2755 psig, 4000 bbl pad
100,000 lbs 80/100 mesh sand, 500,904 lbs 40/70 mesh sand
14,000 bbls treated fluid, Avg. Rate 73 bpm,
Avg. Treating Press. 4776 psi, ISDP 2115 psi

Production Tops

Blue Monday	1190'-1261'
Big Lime	1294'-1417'
Big Injun	1408'-1504'
Squaw	1506'-1536'
Gordon	1544'-1866'
4th Sand	1882'-1940'
5th Sand	1949'-2053'
Bayard	2109'-2138'
Elizabeth	2446'-2468'
Bradford	3176'-3243'
1st Riley	3504'-3552'
2nd Riley	3730'-3748'
Benson	3867'-3885'
1st Elk	4414'-4442'
2nd Elk	4476'-4546'
3rd Elk	4683'-4705'
Alexander	5242'-5280'
Sycamore Grit	6230'-6247'
Genasea	6763'-6800'
Tully Limestone	6800'-6820'
Marcellus Shale	6905'-7002'
TD	7022'

Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

45-02335

arm Name	Heartwood Forestland Fund	Well Number	511767
ocation Elevation	852	QUAD	Mallory
istrict	Unknown	County	Logan,WV
atitude 9200	Degree 37 Minutes 42 Seconds 30		WV
ongitude 8900	East Degree 81 Minutes 47 Seconds 30		

ompany EQT Plaza
Suite 1700
625 Liberty Avenue
Pittsburgh, Pa 15222

Longitude 37.68308

Latitude -81.82233

Agent Cecil Ray

Inspector Tom Morris

ermit Issued 1/25/10

/ell Work Commenced 6/2/2010

/ell Work Completed 8/18/2010

erbal Plugging

otary Rig X Rotary Rig

otal Depth TVD. 4124' MD. 7,165.00

Casing &Tubing Size	Used In Drilling	Left in Well	Cement Cubic FT
13 3/8	36.00	36.00	
9 5/8	511.00	511.00	252.00
7	2081.00	2,081.00	470.60
4 1/2	7127.22	7,127.22	

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Type	From
Fresh Water	83.00
Fresh Water	120.00

Type	From		
Coal	83.00 ft. -	85.00	ft.
Coal	133.00 ft. -	135.00	ft.

Producting Formation

Gas: Initial Open Flow 94

Final Open Flow 1708

Static Rock Pressure 650

NOTE: On back of this form put the following
1) Details of Perforated intervals, fracturing or stimulating, physical change,etc.
2) The well log, a systematic detailed geologfical record of all formations including coal encountered in the well bore

For EQT Production Company

By Mike Butcher

Date 9-14-2010

45-02335

Formation record

Gas Tests

ormation Name	Top	Bottom	Thickness	Depth Gas		Comments
.AND AND SHALE	0.00	83.00	83.00	2,486.00	0	
:OAL	83.00	85.00	2.00	2,675.00	0	
;AND AND SHALE	85.00	133.00	48.00	3,060.00	0	
:OAL	133.00	135.00	2.00	3,472.00	0	
;AND AND SHALE	135.00	559.00	424.00	4,255.00	0	Odor
;ALT SAND	559.40	1,198.00	638.60	7,165.00	94	5/10 thru 2"
:AVENCLIFF SAND	1,268.00	1,328.00	60.00			
IPPER MAXTON SAND	1,448.00	1,613.00	165.00			
4IDDLE MAXTON SAND	1,688.00	1,830.00	142.00			
OWER MAXTON SAND	1,938.00	1,979.00	41.00			
ITTLE LIME	2,022.00	2,078.00	56.00			
IIG LIME	2,094.00	2,430.00	336.00			
VEIR SAND	2,516.00	2,631.00	115.00			
;UNBURY	2,956.00	2,980.00	24.00			
IEREA SAND	2,980.00	3,014.00	34.00			
JPPER DEVONIAN	3,015.25					
;ORDON SAND	3,288.00	3,318.00	30.00			
.OWER HURON SHALE	4,054.00	4,516.00	462.00			
. HURON SILTSTONE	4,066.00	4,138.00	72.00			
AVA SHALE	4,516.00	4,670.00	154.00			
\NGOLA SHALE	4,670.00	4,902.00	232.00			
RHINESTREET SHALE	4,902.00					

Questions regarding formations can be directed to Jonette Speranzo.
Jsperanzo@eqt.com

45-02335

Stage	Formation	Frac Type			
1	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	6965 - 7127		4,953.00	4,985.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
102,319.00	5,093.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
		1,002,646.00			

Stage	Formation	Frac Type			
2	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	6724 - 6965		3,452.00	4,948.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
105,011.00	4,999.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.80	1,003,078.00			

Stage	Formation	Frac Type			
3	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	6483 - 6724		3,259.00	4,940.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
104,378.00	4,972.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.90	1,002,343.00			

45-02335

Stage	Formation	Frac Type			
4	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	6242 - 6483		3,285.00	4,839.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
104,639.00	4,859.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.60	1,002,202.00			

Stage	Formation	Frac Type			
5	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	5957 - 6242		3,341.00	4,826.00	5 Min: 1714
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
103,409.00	4,845.00	2,362.00	0.667		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.90	1,004,054.00			

Stage	Formation	Frac Type			
6	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	5716 - 5957		3,345.00	5,007.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
102,405.00	5,101.00	2,430.00	0.685		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.70	1,001,538.00			

45-02335

Stage	Formation	Frac Type			
7	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	5477 - 5716		3,367.00	4,887.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
104,836.00	4,970.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.10	1,000,335.00			

Stage	Formation	Frac Type			
8	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	5236 - 5477		3,388.00	5,625.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
106,860.00	5,667.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.00	1,003,458.00			

Stage	Formation	Frac Type			
9	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	4995 - 5236		3,469.00	6,113.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
107,498.00	6,158.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.80	1,002,465.00			

45-02335

Stage	Formation	Frac Type			
10	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	4755 - 4995		3,513.00	6,243.00	5 Min: 1892
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
101,996.00	6,380.00	3,370.00	0.951		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	6.00	1,002,697.00			

Stage	Formation	Frac Type			
11	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	4514 - 4755		3,524.00	4,994.00	5 Min:
					10 Min:
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min:
103,103.00	5,088.00				
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.50	1,001,438.00			

Stage	Formation	Frac Type			
12	LOWER HURON SILT	N²			
Date	**From / To**	**# of perfs**	**BD Press**	**ATP Psi**	**SIP Detail**
8/10/2010	4229 - 4514		3,327.00	4,488.00	5 Min: 1600
					10 Min: 1552
Avg Rate	**Max Press PSI**	**ISIP**	**Frac Gradient**		15 Min: 1523
103,109.00	4,589.00	2,137.00	0.604		
Sand Proppant	**Water-bbl**	**SCF N2**	**Acid-Gal**		
	5.30	1,002,602.00			

WR-35
Rev (5-01)

DATE: 11/21/2008
API # : 47-051-01099

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: BERTHA & H.F. CROW Operator Well No.: MC-44A

LOCATION: Elevation: 1225.98' Quadrangle: CAMERON,WV-PA 7.5'

District: CAMERON County: MARSHALL
Latitude: 1,834' Feet South of 39 Deg. 52 Min. 12.42 Sec.
Longitude: 4,936' Feet West of 80 Deg. 36 Min. 02.51 Sec.
Company: CNX Gas Company, LLC

	Casing & Tubing	Used in drilling	Left in well	Cement Fill Up (# of Sacks)
Address: 2481 John Nash BLVD	9 5/8"	41'	41'	SANDED IN
Bluefield Wv 24701	7"	530.2'	530.2'	95 SKS
Agent: Les Arrington				
Inspector: Bill Hatfield				
Date Permit Issued: 02/29/2008				
Date Well Work Commenced: 3/31/2008				
Date Well Work Completed: 4/03/2008				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable (Rig)				
Total Depth (feet): 860'				
Fresh Water Depth (ft.):300'				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? No				

Coal Depths (ft.):

OPEN FLOW DATA
Producing formation Pittsburgh COAL SEAM depth (ft) 854'-860'
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Gas Well DOE MC-44A (API No. 47-051-01099) is a horizontal well for CNX Gas Company, LLC. Refer to the attached information for additional information.

Signed: _____
By: Luke Beebe Drilling Manager
Date: 2/4/13

51-01099

ATTACHMENT A

Marshall County CBM Well No. MC-44A PG Drill Log

API #47-051-01099

Depth	Description
5'-10'	FILL
10'-25'	SHALE
25'-35'	SAND
35'-45'	SHALE
45'-155'	R.R
155'-270'	SHALE
270'-395'	SAND
395'-510'-513'	COAL
510'-513'-520'	SAND
520'-540'-542'	COAL
540'-542'-550'	SHALE

WR-35
Rev (5-01)

DATE: 11/21/2008
API # : 47-5101122

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: GARY DOBBS Operator Well No.: MC 6

LOCATION: Elevation: 1153.27 Quadrangle: CAMERON, WV-PA 7.5'

District: LIBERTY County: MARSHALL
Latitude: 2,852 Feet South of 39' Deg. 47' Min. 02.68 Sec.
Longitude: 3,214 Feet West of 80' Deg. 35' Min. 39.95 Sec.
Company: CNX Gas Company, LLC

	Casing & Tubing	Used in drilling	Left in well	Cement Fill Up (# of Sacks)
Address: 2481 John Nash BLVD	13 5/8"	31.2	31.2	SAND IN
Bluefield Wv 24701	9 5/8"	351.1'	351.1'	130 SKS
Agent: Les Arrington	7"	1056.8'	1056.8'	90 SKS
Inspector: Bill Hatfield				
Date Permit Issued: 05/02/2008				
Date Well Work Commenced: 5/30/08				
Date Well Work Completed: 6/23/08				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable (Rig)				
Total Depth (feet): 1110'				
Fresh Water Depth (ft.): 300'				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? No				

Coal Depths (ft.):

OPEN FLOW DATA
Producing formation Pittsburgh COAL SEAM depth (ft) 832'-837'
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Gas Well DOE MC-6(API No. 47-5101122) is a horizontal well for CNX Gas Company, LLC. Refer to the attached information for additional information.

Signed: _____
By: Luke Beebe Drilling Manager
Date: 2/4/13

51-01122

ATTACHMENT A

Marshall County CBM Well No. MC-6 Drill Log

API #47-5101122

Depth	Description
0	GL
0-6	FILL
6-10	CLAY
10-15	LOOSE SHALE
15-22	SHALE
22-28	SAND
28-70	SHALE
70-175	SAND & SHALE
175-320	SAND
320-425	SHALE
425-575	RR
575-690	SAND
690-832-837	PPG COAL
832-837-950	SAND
950-985	RR
985-1110	SHALE

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Rev (5-01)

DATE: 11/21/2008
API # : 47-5101123

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: GRAY DOBBS Operator Well No.: MC-6A

LOCATION: Elevation: 1162.65 Quadrangle: CAMERON , WV-PA 7.5

District: LIBERTY County: MARSHALL
Latitude: 3091 Feet South of 39' Deg. 47 Min. 00.32 Sec.
Longitude: 3445 Feet West of 80 Deg. 35 Min. 42.92 Sec.

Company: CNX Gas Company, LLC

	Casing & Tubing	Used in drilling	Left in well	Cement Fill Up (# of Sacks)
Address: 2481 John Nash BLVD	9 5/8"	42.0	42.0	SANDED IN
Bluefield Wv 24701	7"	531.4	531.4	100 SKS
Agent: Les Arrington				
Inspector: Bill Hatfield				
Date Permit Issued: 5/02/2008				
Date Well Work Commenced: 5/29/2008				
Date Well Work Completed: 6/23/2008				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable (O) Rig				
Total Depth (feet): 837'				
Fresh Water Depth (ft.): 300'				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? No				

Coal Depths (ft.):

OPEN FLOW DATA
Producing formation **Pittsburgh COAL SEAM** depth (ft) 832'-837'
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Gas Well DOE MH-13 (API No. 47-6101560) is a horizontal well for CNX Gas Company, LLC. Refer to the attached information for additional information.

Signed: _____
By: Luke Beebe Drilling Manager
Date: 2/4/13

51-01123

ATTACHMENT A

Marshall County CBM Well No. MC-6A Drill Log

API #47-5101123

Depth	Description
5-10	DIRT & FILL
10-15	CLAY
15-35	SAND
35-45	SHALE
45-100	RR
100-175	SAND
175-305	SHALE
305-490	SAND
490-525	SHALE

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Rev (5-01)

DATE: 10/21/2011
API # : 47-5101174

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Consolidation Coal Company Operator Well No.: MC-22

LOCATION: Elevation: 1330.62 Quadrangle: Cameron
District: Liberty County: Marshall
Latitude: 39 Feet South of 50 Deg. 00 Min. Sec.
Longitude: 80 Feet West of 30 Deg. 00 Min. Sec.
Company: CNX Gas Company, LLC

	Casing & Tubing	Used in drilling	Left in well	Cement Fill Up (# of Sacks)
Address: 2481 John Nash BLVD	13 3/8"		41'	Sanded In
Bluefield Wv 24701	9 5/8"		350'	130 sks 3% Cal Chloride
Agent: Les Arrington	7"		1154.70'	100 SKS STD 3 % CAL CHL.
Inspector: Bill Hendershot				
Date Permit Issued: 12/3/2008				
Date Well Work Commenced: 2/9/09				
Date Well Work Completed: 2/12/09				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable (Rig)				
Total Depth (feet): ~~249'~~ 1180' L.B.				
Fresh Water Depth (ft.): 290'				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? No				

Coal Depths (ft.): 821, 923'

OPEN FLOW DATA
Producing formation Pittsburgh depth (ft) 923'
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Gas Well DOE MC22 (API No. 47-5101174) is a horizontal well for CNX Gas Company, LLC. Refer to the attached information for additional information.

Signed By: District Drilling Manager
Date: 2/21/13

51-01174

Attachment A

Marshall County CBM well No. MC-22 Drill Log

API #47-051-01174

Depth	Description
0'-6'	Fill
6'-20'	Clay
20'-25'	Loose Shale
25'-31'	Shale
31'-38'	Sand & Shale
38'-140'	Sand
140'-200'	Sand & Shale
200'-260'	Sand
260'-375'	Shale
375'-460'	Sand & Shale
460'-810'	Sand
810'-900'	Sand & Shale
900'-927'	Pitt. Coal
927'-933'	Shale
933'-970'	Sand & Shale
970'-1110'	Shale
1180'	TD

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Rev (5-01)

DATE: June 19, 2012
API #: 47-051-01407

WJP

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: HAZLETT, FREDERICK S. Operator Well No.: SHL-1E-HS

LOCATION: Elevation 1168.09' Quadrangle: MAJORSVILLE

District: SANDHILL County MARSHALL
Latitude: Feet South of 39 Deg. 58 Min. 24.29 Sec.
Longitude Feet West of 80 Deg. 34 Min. 29.60 Sec.

Company: CNX Gas Company LLC	**Casing & Tubing**	**Used in drilling**	**Left in well**	**Cement fill up Cu. Ft.**
Address: 200 Evergreene Drive				
Waynesburg, PA 15370				
Agent: Tim Rinehart				
Inspector: Bill Hendershot				
Date Permit Issued: 01/24/2011				
Date Well Work Commenced: 01/26/2011	30"	39'	39'	Grouted in
Date Well Work Completed: 10/08/11				
Verbal Plugging N/A	13 3/8"	1007'	1007'	665 sks
Date Permission granted on: 01/26/2011				
Rotary Cable Rig X	9 5/8"	2960'	2960'	940 sks
Total Depth (feet): ~~10,010'~~ 6530' TVD	5 ½"	9,987'	9,987'	1,577 sks
Fresh Water Depth (ft.): 200'				
Salt Water Depth (ft.):				
Is coal being mined in area (N/Y)? Yes				
Coal Depths (ft.) 652'-658'				

OPEN FLOW DATA

Producing formation Marcellus Pay zone depth (ft) 6,465'
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow N/A MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests N/A Hours
Static rock Pressure 1900 psig (surface pressure) after 24 Hours

Second producing formation N/A Pay zone depth (ft) N/A
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow N/A MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests N/A Hours
Static rock Pressure N/A psig (surface pressure) after N/A Hours

***Commingled with previous formations**

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed:
By:
Date: 02-19-2013

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Page 2 of 2

WELL: 47-051-01407

Were core samples taken? Yes / No **Were cuttings caught during drilling?** Yes / No

Were Electrical Yes / No, **Mechanical** Yes / No, **or Geophysical logs** Yes / No **recorded on this well?**

NOTE: IN THE AREA BELOW PUT THE FOLLOWING:

1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR PHYSICAL CHANGE, ETC.
2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

PERFORATED INTERVALS, FRACTURING, OR STIMULATING:

FORMATIONS ENCOUNTERED:

GAMMA RAY /FORMATION TOPS

FORMATION TOP BASE

Depths Determined By Drillers Log

Driller's Log	
Depth	**Formation**
0'-15'	Fill
15'-150'	Shale
150'-652'	Shale/Sand
652'658'	Coal
658'-762'	Shale/Sand
762'-1013'	Red Rock
1013'-1249'	Shale
1249'-1377'	Shale/Sand
1377'-1408'	Shale/Lime
1408'-1502'	Shale/Sand
1502'-1659'	Sand
1659'-1721'	Sand/Lime
1721'-1782'	Sand/Shale/Lime
1782'-1847'	Sand
1847'-2003'	Shale/Sand
2003'-2097'	Shale/Lime
2097'-2253'	Sand/Shale/Lime
2253'-2284'	Sand/Shale/Lime
2284'-2378'	Sand/Lime/Silt
2378'-2473'	Red Rock/Shale
2473'-2505'	Red Rock/Shale
2505'-2599'	Shale/Lime
2599'-2694'	Sand/Shale/Lime
2694'-2820'	Sand/Shale/Silt
2820'-2946'	Shale/Lime
2946'-3027'	Sand/Shale/Silt
3027'-3500'	Sand/Silt

Depth Determined From AIR-Quad/Gamma Logs

51-01407

CONSOL ENERGY

Geological Top Estimations

Well (Pad) Name	SHL01 pad
Datum (GR)	1163

	TVD	S.L.	
Gas Sand Top	1262	-99	
Gas Sand Base	1326	-163	
1st Salt Sand Top	1358	-195	
1st Salt Sand Base	1366	-203	
2nd Salt Sand Top	1463	-300	The salt sands could possibly be a fluid thief zone
2nd Salt Sand Base	1518	-355	
3rd Salt Sand Top	1551	-388	
3rd Salt Sand Base	1592	-429	
Maxton Top	1613	-450	
Maxton Base	1693	-530	
Big Lime Top	1697	-534	
Big Injun Top	1730	-567	
Big Injun Base	1916	-753	
Berea Top	2212	-1049	
Berea Base	2229	-1066	
Gantz Top	2265	-1102	
Gantz Base	2313	-1150	
Gordon Top	2631	-1468	
Gordon Base	2649	-1486	
Fifth Top	2741	-1578	
Fifth Base	2772	-1609	
Burkett Shale	6302	-5139	
Tully Top	6310	-5147	
Hamilton Top	6343	-5180	
Marcellus	~6449	-5286	
Onondaga	~6508	-5345	

TVD: ~6530